Nobel Biocare USA, Inc.

510(k) Notification: Immediate Loading Indication

June 21, 1999

K992937

Section 7 510(k) Summary

A. Manufacturer Information:

Submitter's Name:

Nobel Biocare USA, Inc.

Address:

U.S. Representative/Distributor

22725 Savi Ranch Parkway

Yorba Linda, CA 92887, USA

Contact's Name:

Jeff Hausheer, Ph.D., Regulatory Affairs Specialist

Contact's Telephone No.:

714-282-4800, extension 7832

Date Prepared:

June 1999

Address-Manufacturer:

Nobelpharma Production AB

Dimbovagen 2

Karlskoga S-691-51, Sweden

Manufacturer Registration Number: 9611993

B. Device Name:

Common Name:

Dental Implant

Trade Name:

Brånemark System® Implants Indicated For Loading

Immediately Following Implant Placement (see table below)

(i.e., within 2 to 3 weeks following implant placement)

| Brånemark System®: Implant Product | Dimensions: Diameter & |
|------------------------------------|------------------------|
| Family Name | Range of Lengths (mm) |
| Standard Series Implants (3.75) | 3.75 x 10-20 mm |
| Standard Series Implants (4.0) | 4.0 x 10-18 mm |
| Mk II Self-Tapping Implants (3.75) | 3.75 x 10-18 mm |
| Mk II Self-Tapping Implants (4.0) | 4.0 x 10-18 mm |
| Self-Tapping Implants | 3.75 x 10-18 mm |
| Conical Self-Tapping Implants | 3.75 x 13-21 mm |
| Mk IV Self-Tapping Implants | 4.0 x 10-18 mm |

Classification:

Classification Name:

Endosseous Dental Implant

Classification Number:

DZE

Classification Citation:

21 CFR 872.3640

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Section 7 510(k) Summary (continued)

C. Device Description:

<u>Description</u>: Brånemark System[®] dental implants are threaded, root-form implants fabricated from ASTM grade 1 "commercially pure" titanium. They are available in diameters of 3.75 mm and 4.0 mm, and are available in lengths ranging from 10 mm to 21 mm. Research studies have demonstrated that titanium is biocompatible.

D. Intended Use:

Indications For Use: Selected Brånemark System® implant products (those identified in Table 7.1, below) are intended to be placed in the upper or lower jaw to support prosthetic devices, such as artificial teeth, and to restore a patient's chewing function. This may be accomplished using either a two stage surgical procedure or a single stage surgical procedure.

If a single stage surgical procedure is used, these implants may be loaded immediately following insertion - PROVIDED — at least four implants are placed, and are splinted with a bar. These implants must be placed predominantly in the anterior mandible (between the mental foramina) where good initial stability of the implants, with or without bi-cortical anchorage, can most often be obtained.

Table 7.1
510(k) Notification:
Brånemark System® Implant Products Indicated For Immediate Loading

| Brånemark System®: Implant Product Family | Diameter | Range of Lengths | 510(k) |
|--|----------|------------------|---------|
| Mk II Self-Tapping | 3.75 mm | 10-18 mm | K925762 |
| Mk II Self-Tapping | 4.0 mm | 4.0 x 10-18 mm | K945398 |
| Standard Series | 3.75 mm | 3.75 x 10-20 mm | K925765 |
| Standard Series | 4.0 mm | 4.0 x 10-18 mm | K925764 |
| Self-Tapping | 3.75 mm | 3.75 x 10-18 mm | K925762 |
| Conical Self-Tapping | 3.75 mm | 3.75 x 13-21 mm | K925760 |
| Mk IV Self-Tapping | 4.0 mm | 4.0 x 10-18 mm | K974828 |

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Section 7: 510(k) Summary (continued)

E. Comparison to the Predicate Device(s):

Comparison Of The Predicate Devices And The Brånemark System® Implant Products For Which Clearance Of An Immediate Load Indication Is Sought

| | Predicate Product | Predicate Product | Submitted Product | |
|------------------------|--|---|--|--|
| Characteristic | Straumann ITI Implant (510(k) K984104) | Sargon Cylindro-Blade Implant [510(k) K930071] | Brånemark System [®] Implant Products** | |
| Intended Use | intended to be placed in the maxillary and/or mandibular arches to support prosthetic restorations in edentulous or partially edentulous patients. | Intended to act as a replacement for missing teeth by providing the means for fixation of dentures, removable bridgework, or prosthetic teeth. | (Functionally, the same): intended to be placed in the upper or lower jaw to support prosthetic devices such as artificial teeth, and to restore patient's chewing function. | |
| Indication | Immediate Load | Immediate Load | Same | |
| Design | threaded, root-form implant | a threaded, tapered, non-solid (hollow), flanged root form implant | threaded, root-form implants | |
| Placement Method | Single stage surgery | Single stage surgery | Same | |
| Material | Commercially pure titanium | Titanium alloy | Commercially pure titanium | |
| Coating | None | None | None | |
| Length (mm, minmax.) | Unknown | 10mm to 18 mm | 10mm to 21 mm | |
| Diameter (mm) | Unknown | Available in 1 tapered design only, ran Available in one tapered design only; its diameter ranges from 3.8 mm to 4.1 ranging from 3.8 mm to 4.1 mm | 3.75 mm and 4.0 mm | |
| Precautions & Warnings | Unknown | None | None | |
| Packaging | Unknown | Vial | Glass ampoule in peel-open blister pack | |
| Provided Sterile? | Unknown | Unknown | Yes (dry heat = glass ampoule; steam = blister pack) | |

⁼ See Table 2.A.1 for identification, dimensions, and 510(k) numbers of each product

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FEB 2 9 2000

Food and Drug Administration 9200 Corporate Boulevard Rockville MD 20850

Dr. Jeff Hausheer Regulatory Affairs Specialist Nobel Biocare USA, Inc. 22895 Eastpark Drive Yorba Linda, CA 92887

Re: K992937

Trade Name: Brånemark System® Implants

Regulatory Class: III

Product Code: DZE

Dated: December 2, 1999 Received: December 6, 1999

Dear Dr. Hausheer:

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Good Manufacturing Practice for Medical Devices: General (GMP) regulation (21 CFR Part 820) and that, through periodic GMP inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of

the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4690. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its internet address "http://www.fda.gov/cdrh/dsmamain.html".

Sincerely yours,

Timothy A. Ulatowski

Director

Division of Dental, Infection Control, and General Hospital Devices Office of Device Evaluation Center for Devices and

falacea Execute/for

Radiological Health

Enclosure

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Section 10 Indications for Use

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510(k) Number (if known): K-----

Device Name:

Selected Brånemark System® Implant Products:

| Mk II Self-Tapping | K925762 |
|----------------------|---------|
| Mk II Self-Tapping | K945398 |
| Standard Series | K925765 |
| Standard Series | K925764 |
| Self-Tapping | K925762 |
| Conical Self-Tapping | K925760 |
| Mk IV Self-Tapping | K974828 |

Indications For Use: Selected Brånemark System® implant products (those identified in the preceding section, "Device Name") are intended to be placed in the upper or lower jaw to support prosthetic devices, such as artificial teeth, and to restore a patient's chewing function. This may be accomplished using either a two stage surgical procedure or a single stage surgical procedure.

If a single stage surgical procedure is used, these implants may be loaded immediately following insertion - <u>PROVIDED</u> – at least four implants are placed, and are splinted with a bar. These implants must be placed predominantly in the anterior mandible (between the mental foramina) where good initial stability of the implants, with or without bi-cortical anchorage can most often be obtained.

| (PLEASE DO NOT WRITE I | BELOW THIS | LINE - CONTINUE ON ANOTHER PAGE IF NEEDEL |)) |
|------------------------|------------|---|----|
| Concurrence o | f CDRH, | Office of Device Evaluation (ODE) | |
| Prescription Use | OR | Over-The-Counter Use | - |
| (Per 21 CFR 801.109) | | (Optional Format 1-2-96) | (|